

ABSTRACT

A magnetic levitation motor includes a rotor and a stator disposed opposite to the rotor. The rotor has a main body formed from a magnetic member and a permanent magnet attached to a peripheral surface of the main body. The stator has a first stator winding that generates a levitation control magnetic flux for controllably levitating the rotator body, a second stator winding that generates a rotation magnetic flux for rotating the rotator body and a stator core having the first stator winding and the second stator winding. A direct current magnetic field generation device is provided to generate a magnetic flux radially spreading from the rotor to the stator. The stator core is formed from a plurality of individual stator core sections. Each of the individual stator core sections has a base section and a salient pole section extending from a central section of the base section. The first winding and the second winding are wound around the salient pole section of each of the individual stator core sections. Then, the stator core sections are joined together to form the stator core.